

# The birds of Bijol Island, Tanji River (Karinti) Bird Reserve, The Gambia

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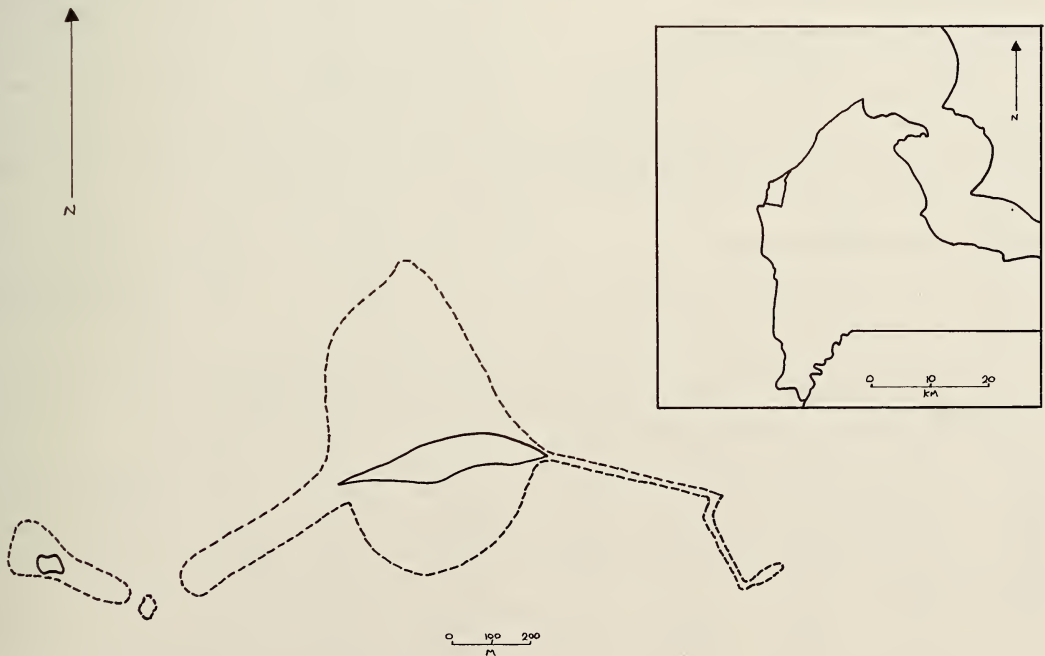
Les îles Bijol, situées à environ 1.5 km de la côte de la Gambie, sont les seules îles proches des 80 km de littoral de ce pays. À ce jour, les données sur l'avifaune étaient limitées aux comptages annuels effectués, en dehors de la période de reproduction, dans le cadre du dénombrement d'oiseaux d'eau en Afrique. De septembre 1999 à octobre 2000, les îles ont été visitées mensuellement afin d'y compter les oiseaux, y compris les espèces nicheuses pendant la période de reproduction. Les résultats indiquent que les îles Bijol constituent un refuge et un lieu de gagnage importants, aussi bien sur le plan local que national, pour les migrateurs paléarctiques et les espèces locales. Elles sont également le seul site connu en Gambie où nichent Sternes caspiennes *Sterna caspia*, Sternes royales *Sterna maxima* et Mouettes à tête grise *Larus cirrocephalus*. De plus, un couple nicheur de Goélands dominicains découvert durant l'étude constitue le premier cas de nidification en Gambie.

## Introduction

The Bijol Islands are located c1.5 km off the Gambian coast and are the only offshore islands along the entire 80 km of coastline<sup>1</sup> (Fig 1). There are two islands, one large and one small, which are joined at low tide by a sand spit. The larger of the two islands is centred on 13°23'N 16°48'W. Both islands are low lying with a maximum elevation of c2 m, although this varies with the season. They are formed from accumulated sand deposits lying on top of a partially exposed laterite reef mass. The larger island is c2.07 ha in extent and the smaller is approximately 0.17 ha

in extent at high tide. Around 36.57 ha of reef and sand spits are exposed at low tide. The surrounding waters are relatively shallow and lie on the continental shelf.

The small island was once used as an unmanned lighthouse station and the remains of the now abandoned building are still present. This island is devoid of any vegetation. The large island is mainly covered with a variety of low-growing saline-tolerant plants, such as Seaside Purslane *Sesuvium portulacastrum*, Beach Morning Glory *Ipomoea pes-caprae*, *Cenchrus biflorus* and *Cyperus maritimus*. There are a few



Map of the Bijol Islands

Casuarina *Casuarina equisetifolia* and Baobab *Adansonia digitata* trees present, but none of these reach higher than 3 m. *Scaevola plumeri* also occasionally occurs as small shrubs in the interior of the island.

The islands are one element in a dynamic coastline ecosystem, parts of which are suffering dramatic erosion owing, at least in part, to human factors such as illegal sand-mining<sup>2</sup>. In other areas of the coast there is a corresponding deposition of sand and the Bijol Islands appears to be a product of this accretion. According to Camara<sup>1</sup> the islands were much larger than their present size in the 1940s, with a thicker vegetation cover including large trees. However, by 1961 a violent storm had washed most of the vegetation and the underlying sand away. At the present time the islands appear once again to be increasing in size and even during the short period of this study the islands were seen to expand by 1–2 m (pers obs).

The islands form a part of the Tanji River (Karinti) Bird Reserve, a 612 ha protected area that was gazetted in 1993<sup>5</sup> and is managed by the Department of Parks and Wildlife Management (DPWM).

## Methodology

The Bijol Islands were visited at approximately monthly intervals from September 1999 to October 2000. All visits were timed to coincide with low tide so that access on foot would be possible to the smaller of the two islands along the adjoining sand bar. Visits were purposely kept as short as possible to minimise disturbance to the birds.

### Recording in the non-breeding season

During the non-breeding season (October to March) all birds on the islands, flying above, or close offshore (up to 100 m from the shoreline) were identified to species level and counted. The number of pelicans that were present on the islands or close offshore was counted throughout the year.

### Recording in the breeding season

During the breeding season (March to September/October) counts were made of the number of occupied nests on the islands ('occupied' in this case means those nests that contained eggs and/or chicks). The number of tern nests on the smaller island was estimated. This was done by measuring the extent of the nesting area, counting the number of nests in ten random 1 m<sup>2</sup> quadrats and calculating the mean number of nests per quadrat. The mean was then multiplied by the number of square metres in the nesting area to give an estimated number of nests within the colony<sup>3</sup>.

## Recording on the main island

The main island was divided into 5 m-wide consecutive belt transects. As the vegetation is fairly open and low to the ground this width of transect permitted all of the nests within each transect to be accurately counted by walking slowly along the transect. From July to October the vegetation had grown tall enough to lower the accuracy of the counts, so the belt transects were narrowed to 2 m. No attempt was made during this period to count juvenile birds away from nest sites. Obviously many of the same nests were present during two or more consecutive counts. Therefore the number of nests shown in Table 3 only indicates the number of nests that were occupied at the time of each visit, not the absolute number of nests throughout the season.

## Discussion

The Bijol Islands are the only offshore islands along the Gambian coastline. Previous bird recording has been limited to the annual visits under the African Waterbird Census programme in 1997<sup>7</sup>, 1998<sup>8</sup>, 1999 and 2000, which were carried out during the non-breeding months and failed to realise the importance of the islands for breeding species. The current study has added substantially to baseline information on the species and numbers of birds using the Bijol Islands throughout the year.

Bijol Islands provide the only known breeding site in The Gambia for Caspian Tern *Sterna caspia*, Royal Tern *S. maxima* and Grey-headed Gull *Larus cirrocephalus* at the present time. The Royal Terns especially are present in substantial numbers, with over 7,360 breeding pairs. A single pair of nesting Kelp Gull *Larus dominicanus* found on Bijol during the study constitutes the first breeding record of this species for The Gambia<sup>13</sup>. The islands are also important for over-wintering birds, including Audouin's Gull *Larus audouinii* (which was considered until recently as a globally threatened species<sup>6</sup>), and several species of Palearctic wader, which use the area as a disturbance-free refuge and feeding ground. Some of these also remain on Bijol over the summer months as non-breeders. Palearctic migrant passerines such as Yellow Wagtail *Motacilla flava*, Chiffchaff *Phylloscopus collybita* and Spotted Flycatcher *Muscicapa striata* were also recorded on Bijol during the survey, but the islands do not appear to be a major staging post for these species as they were only encountered in small numbers. A maximum of four Ospreys *Pandion haliaetus* was recorded on the islands, in October 1999. However, a previous study of Ospreys wintering in The Gambia and Sénégal recorded 13 individuals on the islands in 1978<sup>13</sup>.

## Results

**Table 1** Numbers of birds present during the non-breeding season  
(Scientific names for all species recorded at Bijol are listed in Table 4).

	29/10/99	2/11/99	27/12/99	27/1/2000	14/3/2000
Great White Pelican	0	3	2	35	66
Pink-backed Pelican	2	3	0	0	3
Great Cormorant	0	0	0	1	1
Western Reef Heron	10	5	1	5	1
Grey Heron	5	4	3	3	4
Osprey	4	3	1	3	1
Senegal Thick-knee	0	0	0	2	0
Wattled Plover	0	2	0	0	0
Grey Plover	0	3	2	4	1
Ringed Plover	33	19	30	2	3
Eurasian Curlew	0	0	1	0	0
Whimbrel	0	6	18	5	2
Bar-tailed Godwit	3	7	6	5	6
Common Sandpiper	0	0	0	0	1
Ruddy Turnstone	20	42	85	277	20
Sanderling	300	31	300	0	72
Pomarine Skua	0	0	1	0	0
Arctic Skua	0	0	1	0	0
Audouin's Gull	0	0	8	49	2
Grey-headed Gull	350	250	55	290	700
Slender-billed Gull	0	0	0	9	2
Lesser Black-backed Gull	121	240	300	1,360	2,070
Caspian Tern	140	1,530	6	940	1,550
Royal Tern	400	320	0	0	0
Common Tern	0	0	0	4	300
Black Tern	10	3	70	0	0
Little Tern	100	1	5	40	700
Pied Kingfisher	0	0	2	0	0
Crested Lark	0	0	2	1	0
Yellow Wagtail	0	0	5	4	1
Chiffchaff	0	0	1	0	0
Pied Crow	0	0	2	0	0
<b>Total</b>	<b>1,498</b>	<b>2,472</b>	<b>907</b>	<b>3,039</b>	<b>5,506</b>

**Table 2** Numbers of pelicans present during the breeding season in 2000

	1/5	29/5	26/6	24/7	28/8	5/10
Great White Pelican	360	106	578	715	421	300
Pink-backed Pelican	0	75	4	36	29	0

**Table 3** Estimated number of nests present during the breeding season, 2000

	13/9/99	30/3	1/5	29/5	26/6	24/7	28/8	5/10
Western Reef Heron	3	0	0	0	4	9	6	2
Senegal Thick-knee	0	0	0	1	0	0	0	0
Spur-winged Plover	0	0	0	0	0	1	0	0
Grey-headed Gull	3	238	63	165	117	41	18	3
Kelp Gull	0	0	0	0	1	0	0	0
Caspian Tern	0	124	26	0	0	0	0	0
Royal Tern	0	0	6,784	7,360	1,000	100	0	0
<b>Total</b>	<b>6</b>	<b>362</b>	<b>6,873</b>	<b>7,526</b>	<b>1,122</b>	<b>151</b>	<b>24</b>	<b>5</b>



**Table 4** Bird species identified on Bijol Islands from September 1999 to September 2000  
non-br = non-breeder, br = breeder, res = resident

Common name	Scientific name	Status on Gambian coast (from Barlow <i>et al</i> )
Northern Gannet	<i>Sula bassana</i>	Seasonally common non-br
Great Cormorant	<i>Phalacrocorax carbo</i>	Seasonally common non-br
Long-tailed Cormorant	<i>P. africanus</i>	Common to abundant non-br
Great White Pelican	<i>Pelecanus onocrotalus</i>	Frequent non-br
Pink-backed Pelican	<i>P. rufescens</i>	Common—abundant res br
Western Reef Heron	<i>Egretta gularis</i>	Common—very abundant non-br
Purple Heron	<i>Ardea purpurea</i>	Frequent—common non-br
Grey Heron	<i>A. cinerea</i>	Common non-br
White-faced Whistling Duck	<i>Dendrocygna viduata</i>	Locally abundant res br
Osprey	<i>Pandion haliaetus</i>	Seasonally common non-br
Senegal Thick-knee	<i>Burhinus senegalensis</i>	Common br
Ringed Plover	<i>Charadrius hiaticula</i>	Seasonally common—abundant non-br
White-fronted Plover	<i>C. marginatus</i>	Local and res br
Grey Plover	<i>Pluvialis squatarola</i>	Seasonally common—abundant non-br
Wattled Plover	<i>Vanellus senegallus</i>	Common—locally abundant res br
Spur-winged Plover	<i>V. spinosus</i>	Common—abundant res br
Sanderling	<i>Calidris alba</i>	Common—abundant non-breeder
Bar-tailed Godwit	<i>Limosa lapponica</i>	Common non-br
Whimbrel	<i>Numenius phaeopus</i>	Common—locally abundant non-br
Eurasian Curlew	<i>N. arquata</i>	Common non-br
Common Sandpiper	<i>Actitis hypoleucos</i>	Common—locally abundant non-br
Ruddy Turnstone	<i>Arenaria interpres</i>	Common—very abundant non-br
Pomarine Skua	<i>Stercorarius pomarinus</i>	Seasonally locally common non-br
Arctic Skua	<i>S. parasiticus</i>	Seasonally locally common non-br
Grey-headed Gull	<i>Larus cirrocephalus</i>	Abundant to very abundant non-br
Slender-billed Gull	<i>L. genei</i>	Seasonally common—locally abundant. Possible br
Audouin's Gull	<i>L. audouinii</i>	Seasonally locally frequent
Kelp Gull	<i>L. dominicanus</i>	Uncommon non-br
Lesser Black-backed Gull	<i>L. fuscus</i>	Seasonally common—locally very abundant non-br
Gull-billed Tern	<i>Gelochelidon nilotica</i>	Frequent non-br
Caspian Tern	<i>Sterna caspia</i>	Abundant—locally very abundant. Has attempted to breed
Royal Tern	<i>S. maxima</i>	Abundant—locally very abundant. Has attempted to breed
Common Tern	<i>S. hirundo</i>	Seasonally frequent—abundant non-br
Little Tern	<i>S. albifrons</i>	Seasonally frequent—locally common. Possible br
Black Tern	<i>Chlidonias niger</i>	Seasonally abundant—very abundant non-br
Pied Kingfisher	<i>Ceryle rudis</i>	Common—locally abundant br
Crested Lark	<i>Galerida cristata</i>	Frequent—locally common res br
Yellow Wagtail	<i>Motacilla flava</i>	Seasonally common—abundant non-br
Chiffchaff	<i>Phylloscopus collybita</i>	Seasonally frequent non-br
Spotted Flycatcher	<i>Muscicapa striata</i>	Seasonally uncommon—frequent non-br
Pied Crow	<i>Corvus albus</i>	Common—very abundant res br
Village Weaver	<i>Ploceus cucullatus</i>	Abundant—very abundant res br

The current study serves to underline the fact that the Bijol Islands are a very important site both at a local and national levels. The islands form part of the Tanji River (Karinti) Bird Reserve, a site already well known for its extensive bird fauna<sup>1,4</sup>. Tanji is a gazetted protected area located at the western edge of the African continent, placing it as one of the first landmarks within the West African flyway for Palearctic migrants<sup>1,4</sup>. Bijol Islands are also an important site for nesting Green Turtles *Chelonia mydas*<sup>2,3</sup> and the surrounding waters are used by Monk Seals *Monachus monachus*<sup>11</sup>, Atlantic Hump-backed Dolphins *Sousa*

*teuszii*<sup>12</sup> (which are endemic to West African coastal waters<sup>10</sup>), Bottlenose Dolphins *Tursiops truncatus*<sup>12</sup> and Minke Whales *Balaenoptera acutorostrata* (pers obs).

Since the Bijol Islands are a protected area, it is illegal for anyone, apart from staff members of the DPWM, to land on them. This said, there is a small number of people who visit the islands illegally. These include local fishermen and non-Gambian fishermen (who are passing along the coastline between their home ports and fishing areas). They visit the islands and occasionally stop over on the islands in

rough weather. It is also suspected that some of these fishermen illegally hunt marine turtles around and on the islands and collect their eggs, and the eggs of seabirds, for personal consumption or sale. In addition non-Gambian residents visit the islands for barbecues and picnics, often leaving their litter behind. This is despite the fact that a large signpost on the island informs visitors that unauthorised landing on the islands is forbidden. The staff of Tanji River (Karinti) Bird Reserve have no boat and often have to watch helplessly from the shore while illegal landings take place.

To counter these problems the short-term plan is to sensitise local fishermen using leaflets written in several local languages. The leaflets will impress upon them the importance of the site as a refuge for wildlife and as a spawning ground for fish. In the longer term, funds are being sought for a boat, outboard motor, safety equipment, fuel and maintenance costs, so that DPWM staff from Tanji can regularly patrol the islands (without landing and causing undue disturbance), and intervene if boats are seen heading towards a landing. Currently the Department has secured funds from Wetlands International and the British High Commission, The Gambia, for the programme. The scheme will become self-financing in the longer term by DPWM providing organised trips around the islands for interested locals and visitors to The Gambia.

Protection for those birds that use Bijol Islands is aided by The Wildlife Conservation Act of 1977<sup>8</sup>. In The Gambia this law makes it illegal for anyone to hunt or kill any wild bird or marine turtle, to take their eggs, or even to have in their possession any meat or trophy (such as a turtle shell) from these animals. The present fine stands at D5000 (UK£250), which is above the average earnings for a manual worker per year in The Gambia, and/or a one-year term in prison.

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